WHAT IS CLAIMED IS:

1.   A client computer system comprising:

5   a client storage device;

a processor coupled to said client storage device, wherein said processor is configured to execute software instructions stored in said client storage device;

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a network interface configured for connecting said client computer system to a remote network server unit, wherein said remote network server unit is configured to provide a file for initializing and configuring a network environment on said client computer system;

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a failover server implemented on said client computer system, wherein said failover server is configured to provide network environment functionality if said remote network server unit is not available; and

20   a software manager stored in said client storage device, wherein said software manager is configured to connect to said remote network server unit if said remote network server unit is available or to connect to said failover server if said remote network server unit is not available and to configure said network environment to appear to a user as though said client computer system is connected to said remote network server unit when said client computer system is connected to said failover server.

2.   The client computer system as recited in claim 1, wherein said file is a client cache image file comprising:

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a copy of an operating system;

a copy of client boot configuration files; and

5   a copy of a network database file for configuring said network environment for said client computer system if said remote network server unit is not available.

3.   The client computer system as recited in claim 2, wherein said client cache image
10   file further comprises a copy of application software specified in said copy of a network database file.

4.   The client computer system as recited in claim 3, wherein said client computer system is further configured to operate from said copy of an operating system, which is
15   stored on said client storage device.

5.   The client computer system as recited in claim 2, wherein said client computer system includes an update thread, wherein said update thread is configured to perform an update sequence when connected to said remote network server unit, which includes a
20   network update server and a remote database server, said update sequence comprising:

comparing a first group of version numbers associated with files within said client cache image file located on said client computer system with a second group of version numbers associated with files within a second client
25   cache image file located on said remote network server unit;

notifying said network update server when said first group of version numbers and said second group of version numbers are not the same; and

if said first and said second groups of version numbers are not the same, receiving an updated client cache image file from said network update server.

6. The client computer system as recited in claim 5, wherein said failover server is further configured to record changes to said copy of a network database file stored on said client storage device in a transaction log file.

7. The client computer system as recited in claim 6, wherein said update sequence further comprises:

said network update server reading said transaction log file and determining if changes have been made to said copy of a network database file;

if changes have been made to said copy of a network database file, said network update server determining if said changes are valid;

if said changes are valid, said network update server merging said changes into a network database file located on said remote network server unit;

said network update server creating an updated copy of a network database file and sending said updated copy of a network database file to said client computer system;

said software manager clearing said transaction log file.

8. The client computer system as recited in claim 7 further comprising a heartbeat thread, which monitors a connection to said remote network server unit, wherein said heartbeat thread is configured to notify said update thread when said connection is available and said update sequence is necessary.

9.   A network computer system comprising:

a remote network server unit configured to maintain a file on a remote storage device and to provide said file for initializing and configuring a network environment on a client computer system;

said client computer system coupled to said remote network server unit including:

a client storage device;

a processor coupled to said client storage device, wherein said processor is configured to execute software instructions stored on said client storage device;

a network interface configured for connecting said client computer system to said remote network server unit;

a failover server implemented on said client computer system, wherein said failover server is configured to provide network environment functionality if said remote network server unit is not available; and

a software manager stored in said client storage device, wherein said software manager is configured to connect to said remote network server unit if said remote network server unit is available or to connect to said failover server if said remote network server unit is not available and to configure said network environment to appear to a user as though said client computer system is connected to said remote network server unit when said client computer system is connected to said failover server.

10.   The network computer system as recited in claim 9, wherein said client computer system is further configured to receive said file from said remote network server unit, wherein said file is a client cache image file comprising:

5   a copy of an operating system;

           a copy of client boot configuration files; and

           a copy of a network database file for configuring said network environment for said client computer system if said remote network server unit is not
10   available.

11.   The network computer system as recited in claim 10, wherein said client cache image file further comprises a copy of application software specified in said copy of a
15   network database file.

12.   The network computer system as recited in claim 10, wherein said client computer system is further configured to operate from said copy of an operating system, which is stored on said client storage device.
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13.   The network computer system as recited in claim 10, wherein said client computer system includes an update thread, wherein said update thread is configured to perform an update sequence when connected to said remote network server unit, which includes a network update server and a remote database server, said update sequence comprising:

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           comparing a first group of version numbers associated with files within said client cache image file located on said client computer system with a second group of version numbers associated with files within a second client cache image file located on said remote network server unit;

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notifying said network/update server when said first group of version numbers and said second group of version numbers are not the same; and

if said first and said second groups of version numbers are not the same, receiving
5   an updated client cache image file from said network update server.

14.   The network computer system as recited in claim 13, wherein said network update server is configured to update said client cache image file stored on said client storage device with a cache image file stored on said remote network server unit in response to
10   receiving a notification from said update thread.

15.   The network computer system as recited in claim 14, wherein said network update server is further configured to update said network database file by:

15   reading said transaction log file and determining if changes have been made to said copy of a network database file;

if changes have been made to said copy of a network database file then determining if said changes are valid;
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if said changes are valid, merging said changes into a network database file located on said remote network server unit;

creating an updated copy of a network database file and sending said updated copy
25   of a network database file to said client computer system;

notifying said software manager to clear said transaction log file.

16.   The network computer system as recited in claim 15, wherein said client computer
30   system further comprises a heartbeat thread monitoring a connection to said remote

network server unit, and said heartbeat thread notifying said update thread when said connection is available and said update sequence is necessary.

17. The network computer system as recited in claim 10, wherein said failover server is further configured to record changes to said copy of a network database file stored on said client storage device in a transaction log file.

18. A method for operating a network computer system including a remote network server unit and a client computer system, said method comprising:

determining whether said remote network server unit is connected to said client computer system;

if said remote network server unit is not connected to said client computer system, then said client computer system connecting to a failover server implemented on said client computer system and using a file stored on a client storage device to initialize and to configure a network environment for said client computer system;

if said remote network server unit is connected to said client computer system, then using a copy of an operating system from said file stored on said client storage device to initialize said client computer system and using a network database file located on said remote network server unit to configure said network environment for said client computer system.

19. The method as recited in claim 18 further comprising, in response to a forced remote reboot command, said client computer system receiving an operating system from said remote network server unit to initialize said client computer system and using said network database file located on said remote network server unit to configure said

network environment for said client computer system if said remote network server unit is connected to said client computer system.

20.   The method as recited in claim 18 further comprising said client computer system

5   receiving said file from said remote network server unit, wherein said file is a client cache image file comprising:

said copy of an operating system;

10   a copy of client boot configuration files; and

a copy of a network database file for configuring said network environment for
               said client computer system if said remote network server unit is not
·· available.

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21.   The method as recited in claim 20, wherein said client cache image file further comprises a copy of application software specified in said copy of a network database file.

20   22.   The method as recited in claim 21 method further comprising an update thread performing an update sequence when connected to said remote network server unit, which includes a network update server and a remote database server, said update sequence comprising:

25   comparing a first group of version numbers associated with files within said client
               cache image file located on said client computer system with a second
               group of version numbers associated with files within a second client
               cache image file located on said remote network server unit;

30   notifying said network update server when said first group of version numbers and
               said second group of version numbers are not the same; and

if said first and said second groups of version numbers are not the same, receiving an updated client cache image file from said network update server.

5   23.   The method as recited in claim 22 further comprising said network update server updating said client cache image file stored on said client storage device with a cache image file stored on said remote network server unit in response to receiving a notification from said update thread.

10   24.   The method as recited in claim 23, wherein said network update server is further configured to update said network database file by:

reading said transaction log file and determining if changes have been made to said copy of a network database file;

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if changes have been made to said copy of a network database file then determining if said changes are valid;

if said changes are valid then merging said changes into a network database file;

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creating an updated copy of a network database file and sending said updated copy of a network database file to said client computer system;

notifying said software manager to clear said transaction log file.

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25.   The method as recited in claim 24 further comprising a heartbeat thread executing in said client computer system, monitoring a connection to said remote network server unit, and said heartbeat thread notifying said update thread when said connection is available and said update sequence is necessary.

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26.   The method as recited in claim 20 further comprising said failover server recording changes to said copy of a network database file stored on said client storage device in a transaction log file.